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| Application Number                       | 09/655,595              |
| Filing Dat                               | 09/06/2000              |
| First Named Inv nt r                     | Beausoleil, W.F., et al |
| Group Art Unit                           | 2811                    |
| Examiner Name                            | Not Yet Assigned        |
| Attorney Docket Number                   | 272/212                 |
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| <b>\</b> (   |  | Application Number  | 09/655,595              |                 |
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| . —  | ficate under 37 CFR 3.73 SIGNATURE   | re interest. See 37 CFR 38(b) is enclosed. (Form PT   | **CO/SB/96)             |                 |
| l s i  | R. L. Smith McKeithen,   | Secretary   |                         |                 |
| Name   |  |   |                         |                 |
| Name<br>Signature  | mu un  |   |                         |                 |

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PTO/SB/81 (02-01)

Approved for use through 10/31/2002. OMB 0651-0035

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Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. 09/655,595 Applicati n Numb r 09/06/2000 Filing Date **POWER OF ATTORNEY OR** Beausoleil, W.F., et al First Named Inventor **AUTHORIZATION OF AGENT** 2188 **Group Art Unit** Not Yet Assigned **Examiner Name** 272/212

**Attorney Docket Number** 

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| ountry elephone I am the: Applica Assign Certific  Name Signature Date  | R.L. Smith                       | SIGNATURE of Appli<br>McKeithen, Secretary, Cadence Di | Fax  3.71.  TO/SB/96).  icant or Assignesign Systems,  | nee of Record                                   | Technology Center                            |
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Patent Attorney Docket: 272/212

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|           |                      | IN THE UNITED STATES PATE   | NT AND TRADEMARK OFFICE  |
|           | re the A             | Application of:   | NT AND TRADEMARK OFFICE  )  Group Art Unit: 2811  Examiner: Not Yet Assigned  NAIL  OFFICE  ARE  OFFICE  ARE  OFFICE  OFFICE |
| W         | illiam F.            | . Beausoleil, et al.  | ) Examiner: Not Yet Assigned   |
| Se        | rial No.:            | : 09/655,595  | ) A <sub>1</sub>   |
| Fil       | led: Sep             | ptember 6, 2000   | )<br>)   |
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|           | Enclo                | osed for filing in the above-identified   | application is the following:  |
| I.        | DOC                  | CUMENTS ENCLOSED:   |  |
|           | $\boxtimes$          | Statement Under 37 CFR 3.73(b) w  | ith Exhibit 1 and 2 attached   |
|           | $\boxtimes$          | Power of Attorney or Authorization  | of Agent   |
|           |                      |   |  |
|           |                      |   | E OF MAILING<br>R. §1.8a)  |
| Unite     | ed States F          | y that this paper (along with any referred to as Postal Service on the date shown below with she Commissioner for Patents, Washington, D. | being attached or enclosed) is being deposited with the sufficient postage as First Class Mail in an envelope C. 20231.  |
|           |                      |   | Jeffrey A. Miller Name of Person Mailing Paper   |
|           | 1 26, 2002           |   | Signature of Person Mailing Paper  |
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Patent

Attorney Docket: 272/212

The Commissioner is authorized to charge Lyon & Lyon's Deposit Account No. 12-2475 for any fees required under 37 CFR §§ 1.16, 1.17 and 1.445 and to credit any overpayments to said Deposit Account No. 12-2475.

Respectfully submitted,

LYON & LYON LLP

Dated: April 26, 2002

Bv

Jeffrey A. Miller

633 West Fifth Street, Suite 4700 Los Angeles, California 90071-2066 (408) 993-1555



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### STATEMENT UNDER 37 CFR 3.73(b)

Applicant/Patent Owner: Quickturn Design Systems, Inc. Filed/Issue Date: 09/06/2000 Application No./Patent No.: 09/655,595 Entitled: High Speed Software Driven Emulator Comprised Of A Plurality of Emulation Processors With Improved Boardto-Board Interconnection Cable Length Identification System Quickturn Design Systems, Inc. (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.) (Name of Assignee) states that it is: the assignee of the entire right, title, and interest; or X an assignee of an undivided part interest in the patent application/patent identified above by virtue of a chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below: From: William F. Beausoleil, Bryan R. Cook, Tak-Kwong Ng, Helmut Roth, Peter Tannenbaum, Lawrence A. Thomas and Norton J. Tomassetti To: International Business Machines Corporation The document was recorded in the United States Patent and Trademark Office at Reel 011145, Frame 0438, or for which a copy thereof is attached. 2. From: International Business Machines Corporation To: Cadence Design Systems, Inc. A copy of a document evidencing this assignment is being recorded herewith. A copy of this document is attached as Exhibit 1. 3. From: Cadence Design Systems, Inc. To: Quickturn Design Systems, Inc. A copy of a document evidencing this assignment is being recorded herewith. A copy of this document is attached as Exhibit 2. [NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Part 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.8] The undersigned (whose title is supplied below) is empowered to sign this statement on behalf of the assignee. April 22. Date R.L. Smith McKeithen Typed or printed name Secretary Title

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## NOTICE OF PATENT ASSIGNMENT

This NOTICE OF PATENT ASSIGNMENT (the "Notice") is executed as of the date below, by INTERNATIONAL BUSINESS MACHINES CORPORATION, a New York corporation ("IBM").

WHEREAS, IBM has entered into a "Patent Assignment Agreement" (the "Agreement") with CADENCE DESIGN SYSTEMS, INC., a Delaware corporation ("CADENCE"), dated February 27, 2002 ("Effective Date"), pursuant to which IBM has agreed to, among other things, assign to CADENCE certain United States patents.

WHEREAS, IBM and CADENCE wish to evidence the assignment of such patent rights made in the Agreement with this document.

NOW, THEREFORE, for good and valuable consideration, IBM agrees as follows:

# ARTICLE I IBM PATENTS

"IBM Patents" shall mean the patent applications listed in Attachment A.

# ARTICLE II ASSIGNMENTS

Effective on the Effective Date, and subject to the terms and conditions of the Agreement, including certain reserved rights, IBM has assigned, transferred and conveyed to CADENCE all of IBM's right, title and interest in the IBM Patents.

IN WITNESS WHEREOF, IBM has caused this Notice to be executed.

| INTE         | RNATIONAL BUSINESS MACHINES CORPORATION             |
|--------------|---|
| $\checkmark$ | ( 0 )   |
| By:          | eldi  |
| 7            | Gerald Rosenthal                                    |
|              | Vice President, Intellectual Property and Licensing |

Date: March 8, 2002

# ATTACHMENT A TO IBM PATENT ASSIGNMENT ACKNOWLEDGEMENT

09/655,596

09/656,541

09/193,733

09/523,053

09/656,146

09/373,125

09/655,595

09/656,147

09/796,055

09/522,354

## ASSIGNMENT OF PATENT APPLICATIONS

Whereas, CADENCE DESIGN SYSTEMS, INC., a corporation organized and existing under and by virtue of the laws of the Delaware and having its place of business at 2655 Seely Avenue, San Jose, California 94134 ("CADENCE"), owns of all right, title and interest in the inventions claimed and/or disclosed in following United States Patent Applications ("the Patent Applications"):

| Patent Application<br>Number | Date Patent<br>Application Filed | Inventors               | Title   |
|------------------------------|----------------------------------|-------------------------|---|
| 09/655,596                   | 09-06-00                         | Beausoleil, W.F., et al | High Speed Software Driven Emulator Comprised of a Plurality of Emulation Processors with a Method to Allow Memory Read/Writes Without Interrupting the Emulation                       |
| 09/656,541                   | 09-06-00                         | Beausoleil, W.F., et al | High Speed Software Driven Emulator Comprised of a Plurality of Emulation Processors with a Method to High Speed Bulk Read/Write Operation Synchronous DRAM While Refreshing the Memory |
| 09/193,733                   | 11-17-98                         | Ruedinger, J.           | Algorithm to Separate<br>Clock Domains for<br>Emulation Purposes  |
| 09/523,053                   | 03-10-00                         | Ruedinger, J., et al    | Methods to Improve<br>Concurrent Behavior<br>Modeling with<br>Emulation   |
| 09/656,146                   | 09-06-00                         | Beausoleil, W.F., et al | High Speed Software Driven Emulator Comprised of a Plurality of Emulation Processors with   |

|            |          |                         | Improved Multiplexed Data Memory  |
|------------|----------|-------------------------|---|
| 09/373,125 | 08-12-99 | Beausoleil, W.F., et al | Clustered Processors in an Emulation Engine   |
| Ó9/655,595 | 09/06/00 | Beausoleil, W.F., et al | High Speed Software Driven Emulator Comprised of a Plurality of Emulation Processors with an Improved Board-to- Board Interconnection Cable |
| 09/656,147 | 09/06/00 | Beausoleil, W.F., et al | High Speed Software Driven Emulator Comprised of a Plurality of Emulation Processors with an Improved Maintenance Bus that Streams Data     |
| 09/796,055 | 02-28-00 | Beausoleil, W.F., et al | High Bandwidth 3D<br>Memory Packaging<br>Technique  |
| 09/522,354 | 03-09-00 | Musselman, R., et al    | Non-synchronous<br>Hardware Emulator  |

Whereas QUICKTURN DESIGN SYSTEMS, INC., a corporation organized and existing under and by virtue of the laws of the Delaware and having its place of business at 2655 Seely Avenue, San Jose, California 94134 ("QUICKTURN"), is desirous of acquiring the entire right, title and interest in the inventions claimed and/or disclosed in the Patent Applications;

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, CADENCE hereby sells, assigns, transfers and sets over unto QUICKTURN, its successors and assigns, the full and exclusive right, title and interest to the inventions claimed and/or disclosed in the Patent Applications and to all Letters Patent or application or similar legal protection, not only in the United States and its territorial possessions, but in all countries foreign thereto to be obtained for the inventions claimed and/or disclosed in the Patent Applications, and to any continuation, division, renewal, substitute or reissue thereof or any legal equivalent thereof in the United States or a foreign country for the full term or terms for which the same may be granted, including all priority rights under the International Convention; the Patents to be held and enjoyed by QUICKTURN for its own use and behalf, and for QUICKTURN'S legal

representatives and assigns, to the full end of the term for which any Letters Patents are granted, as fully and entirely as the same would have been held by CADENCE had this assignment and sale not been made. CADENCE hereby authorizes and requests the United States Commissioner of Patents and Trademarks and any officials of foreign countries whose duty it is to issue patents or any legal equivalent thereof to QUICKTURN, its successors and assigns, in accordance with this Assignment.

| Executed this 22 Nd day of April , 2002, at San Jose, CA   |
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| Municus  |
| R.L. Smith McKeithen   |
| Secretary, CADENCE DESIGN SYSTEMS, INC.  |
| STATE OF CALIFORNIA )  |
| ) ss   |
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| On $\frac{4/22/0}{0}$ before me, $\boxed{DVCE}$ $M$ , $Brock$ , personally appeared $R.L.Sm$ : the Mcke.then $\boxed{X}$ personally known to me - $OR$ - $\boxed{D}$ proved to me on the basis |
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| instrument and acknowledged to me that he/she/they executed the same in his/her/their-   |
| authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or   |
| the entity upon behalf of which the person(s) acted, executed the instrument.  |
| WITNESS my hand and official seal.   |
| Joke M. Brock  |
| JOYCE M. BROCK Notary Public in and for said County and State  |
| Notary Public — California   |
| Sarta Clera Countries  |